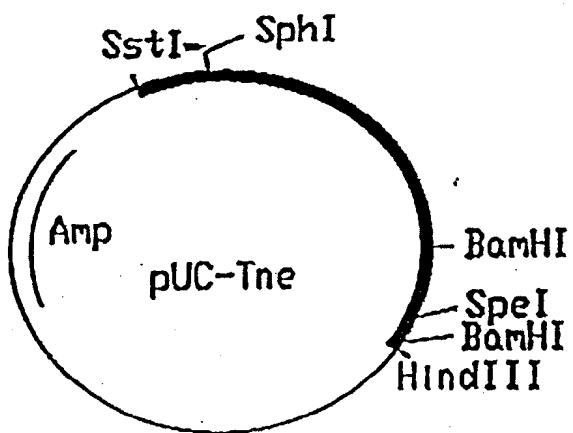


FIG. 1



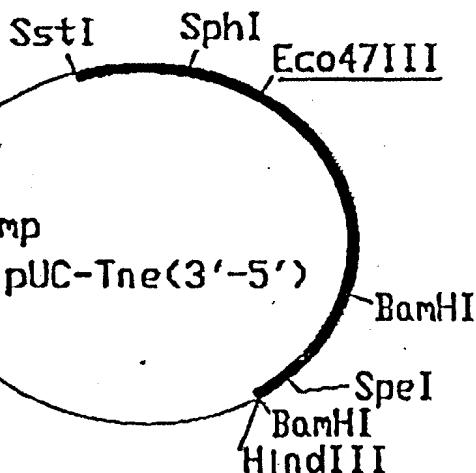
MUTANT M13 RF DNA  
(3'-5' exo)

MUTANT M13 RF DNA  
(Phe → Tyr)

SphI+  
HindIII

SphI+  
HindIII

SphI+HindIII



SstI

SphI

BamHI  
HpaI

Amp  
pUC-TneFY

SpeI

BamHI  
HindIII

FIG.2.A

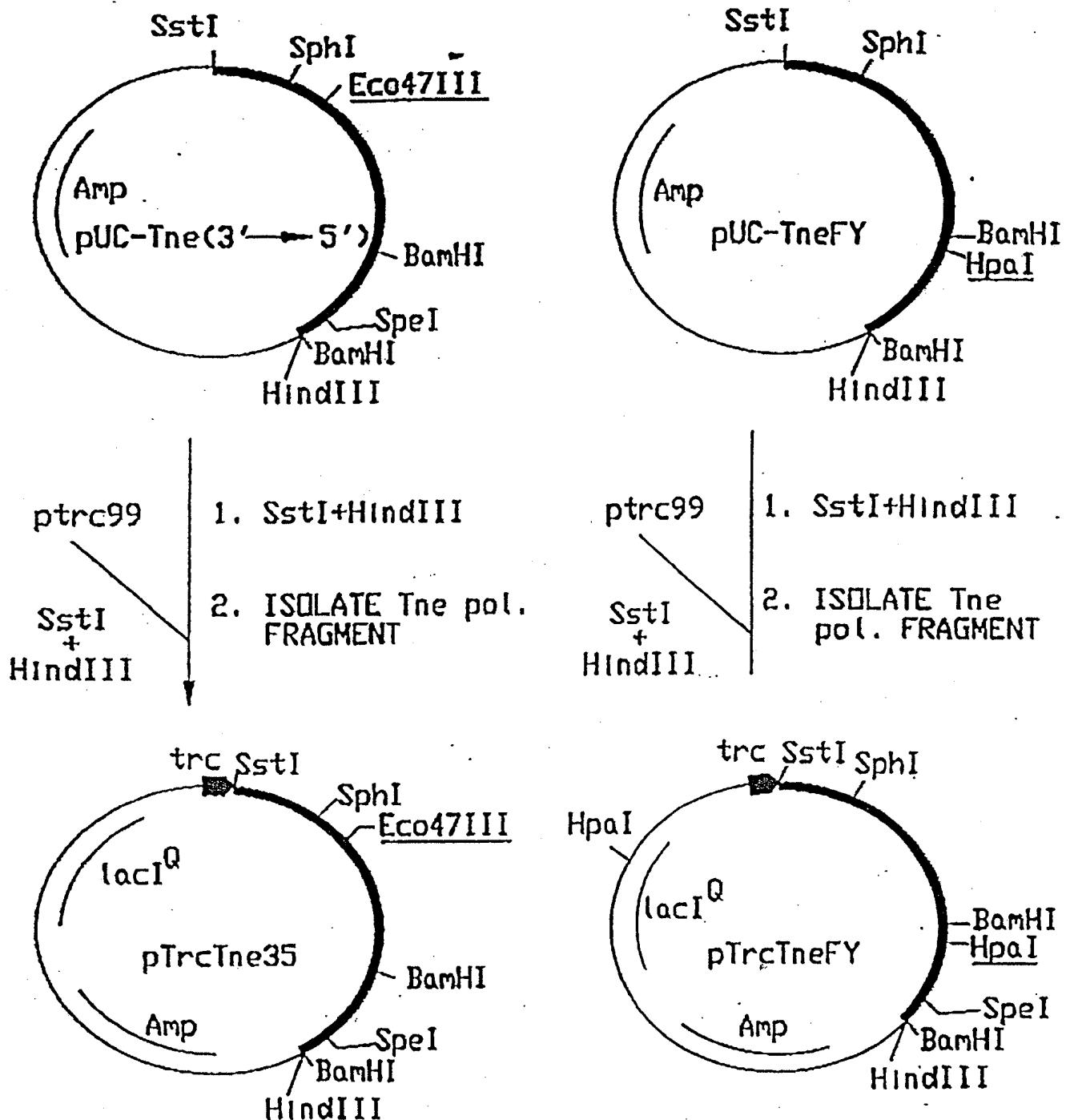


FIG. 2B

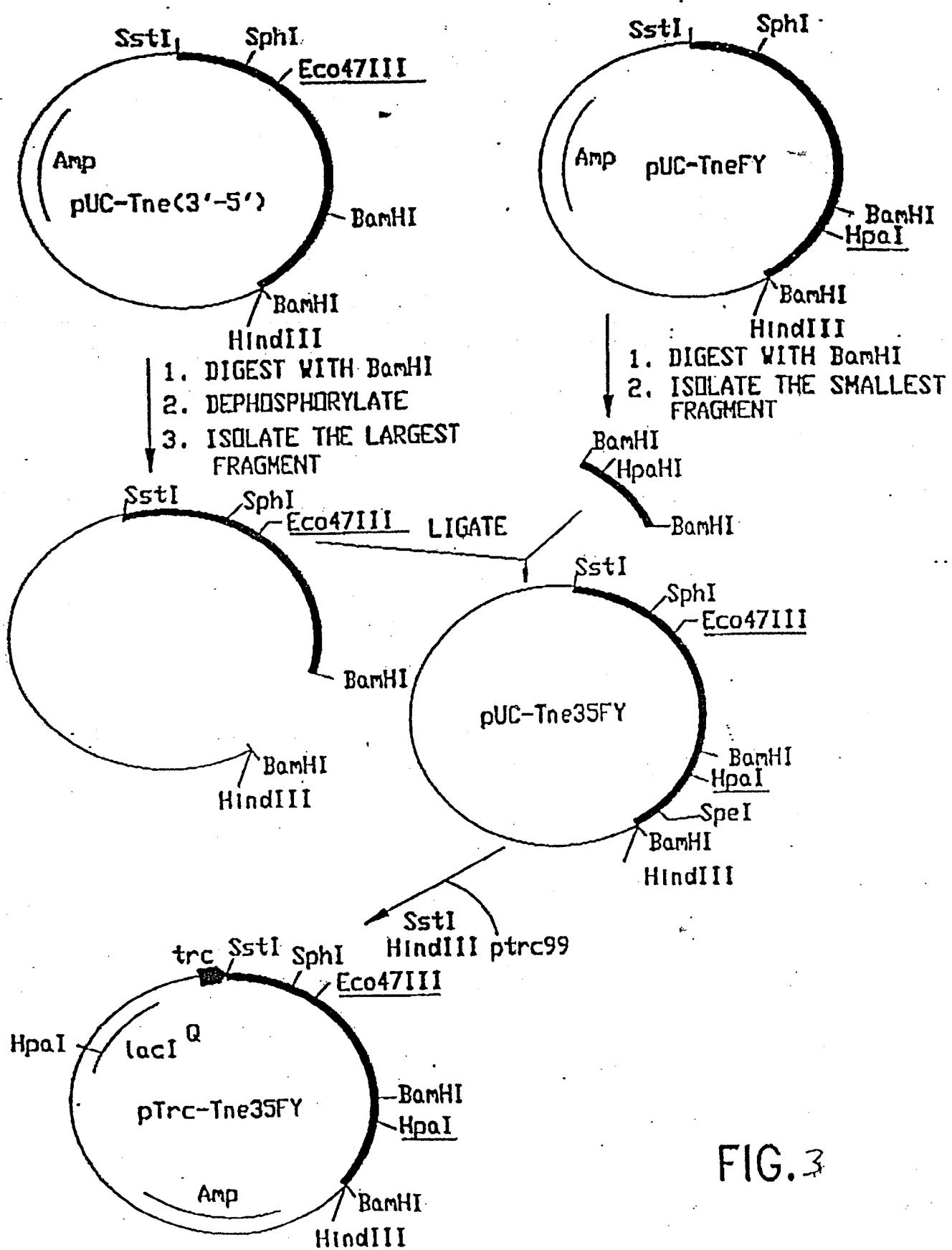
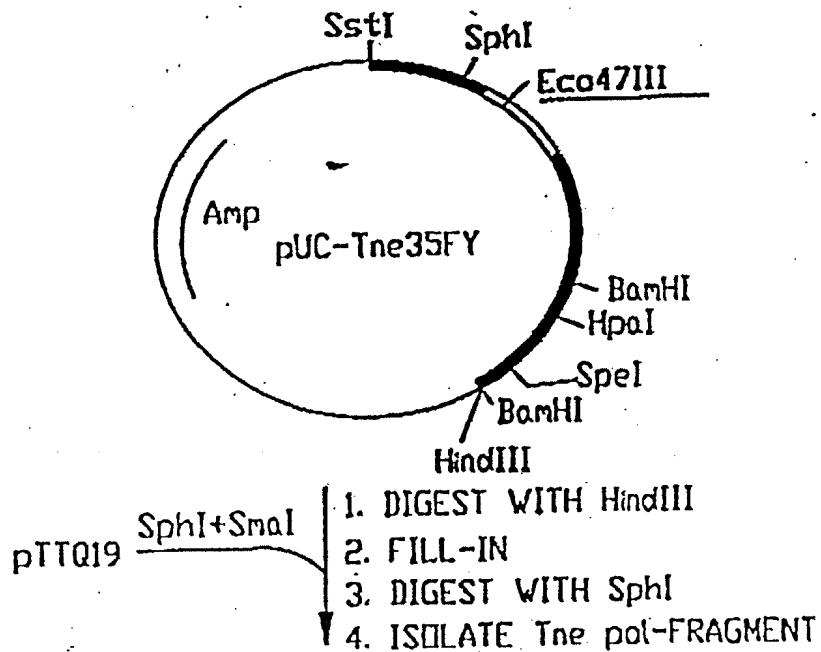
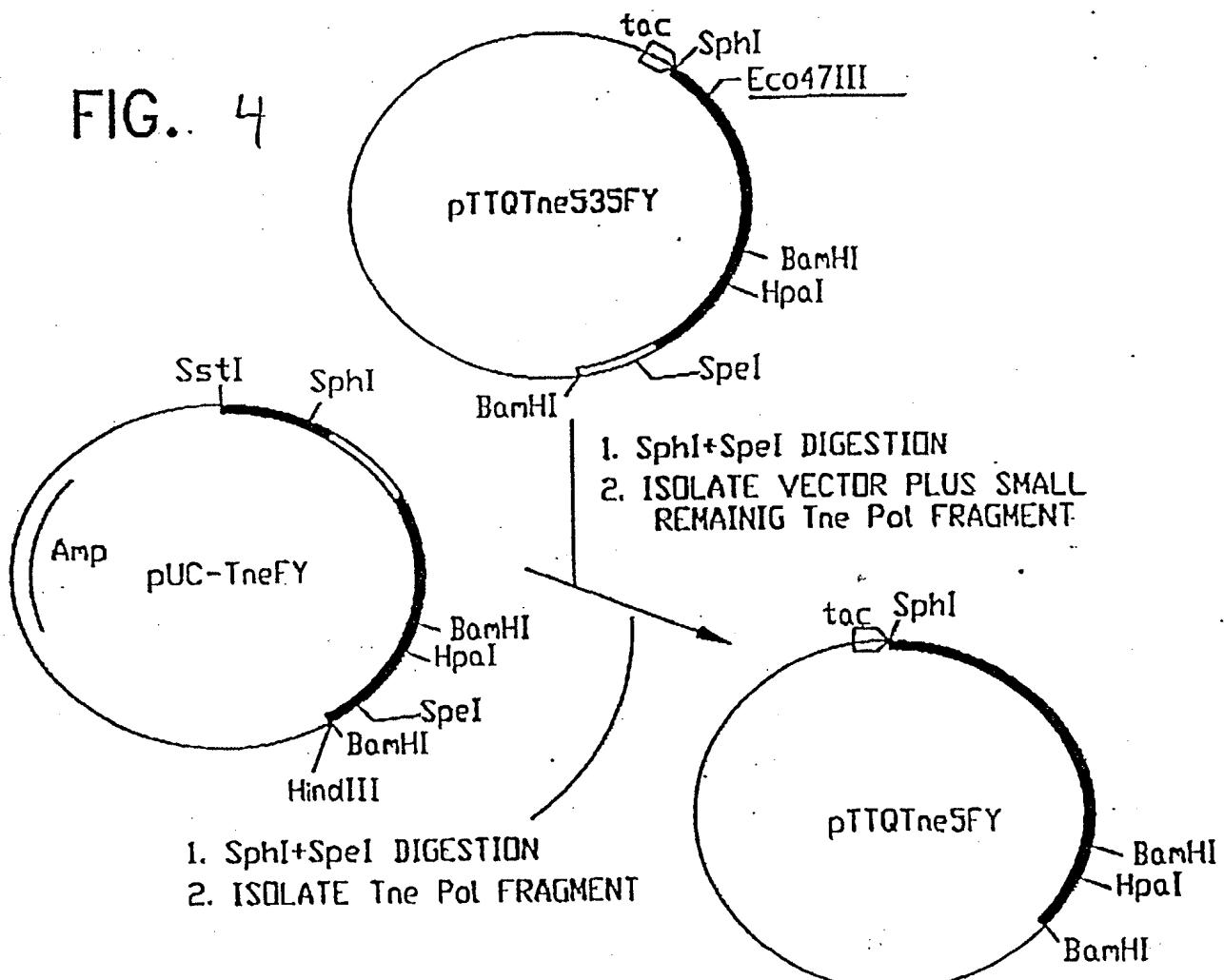
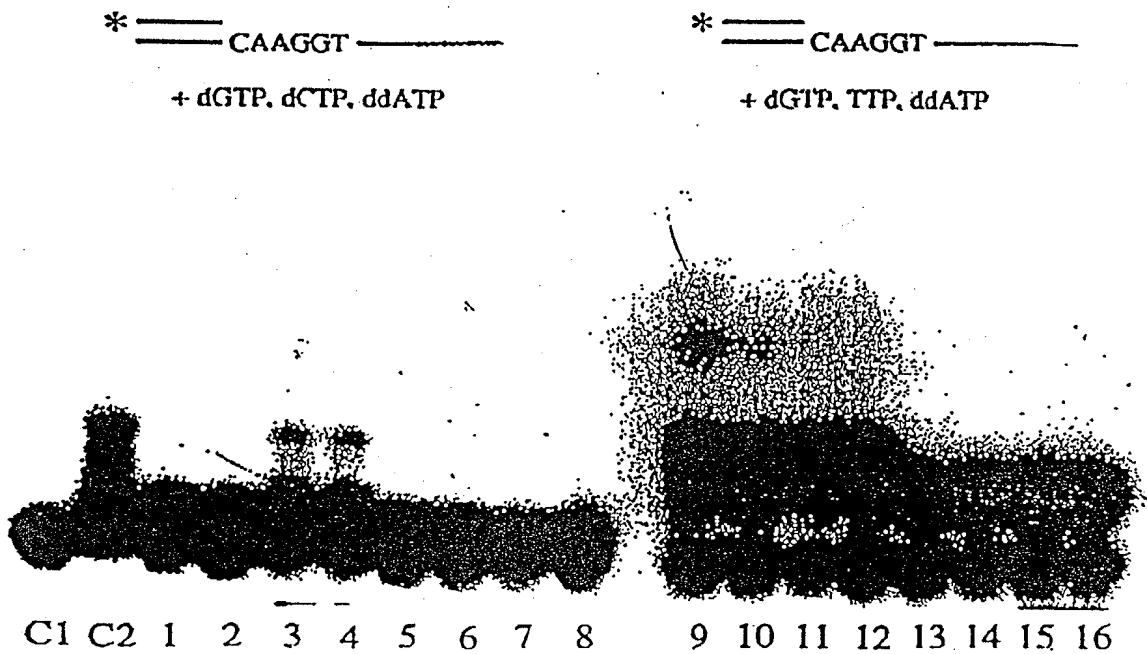


FIG. 3



**FIG. 4**





- C1 Primer alone
- C2 Reaction with dGTP, dCTP, TTP, ddATP and Tne DNA Polymerase (D137A, D323A, R730Y)
- 1,2,9,10 Taq DNA Polymerase
- 3,4,11,12 Tne DNA Polymerase (D137A, D323A)
- 5,6,13,14 Tne DNA Polymerase (D137A, D323A, R722Y)
- 7,8,15,16 Tne DNA Polymerase (D137A, D323A, R722L)

Figure 5

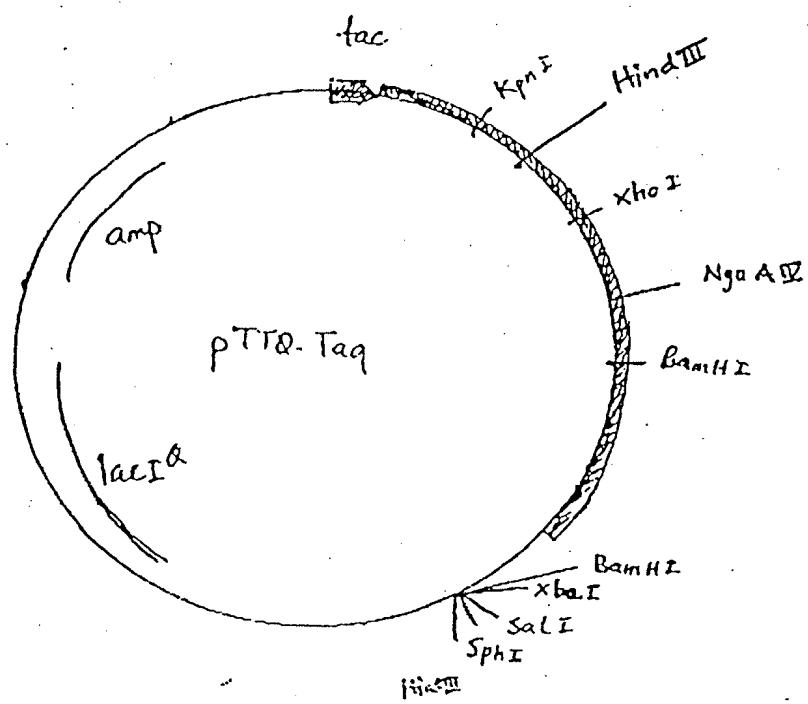


Fig. 6